Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

(Currently amended) A variable focus lens comprising:

a container enclosing an insulating liquid and a conducting liquid, the insulating liquid and the conducting liquid being immiscible, having different refractive indices and being in contact with each other via an interface, the liquids being at least partially placed in a light path through the container;

an electrode arrangement for controlling the shape of the interface by means of a voltage;

the container further comprising a transparent end portion in the light path, a part of the transparent end portion of the container being in direct contact with and defining the shape of a central portion of the interface at a predefined voltagewhen the electrode arrangement is providing 0 volts.

2. (Currently amended) The variable focus lens as claimed in claim 1, wherein the predefined value of the applied voltage is OVelectrode arrangement is configured to apply a voltage sufficient to remove the central portion of the interface from the part of the transparent end portion of the container upon activation of any function that utilizes the variable focus lens.

- (Currently amended) An electronic device comprising:
 - a variable focus lens comprising:
- a container enclosing an insulating liquid and a conducting liquid, the insulating liquid and the conducting liquid being immiscible, having different refractive indices and being in contact with each other via an interface, the liquids being at least partially placed in a light path through the container;

an electrode arrangement for controlling the shape of the interface by means of a voltage;

the container further comprising a transparent end portion in the light path, a part of the transparent end portion of the container being in direct contact with and defining the shape of a central portion of the interface at a predefined voltage when the electrode arrangement is providing 0 volts; and

driver circuitry coupled to the electrode arrangement, the driver circuitry being arranged to:

apply the predefined voltage ovolts across the electrode arrangement in an idle state of the variable focus lens; and

apply a further voltage across the electrode arrangement for separating the interface from the transparent end portion when the variable focus lens is enabled.

- 4. (Currently amended) The electronic device as claimed in claim
- 3, wherein the further voltage is a further predefined voltage.
- 5. (Previously presented) The electronic device as claimed in claim 3, wherein the electronic device further comprises an image sensor for sensing light passing through the variable focus lens, the image sensor being arranged to provide the driver circuitry with an output signal for controlling the magnitude of the further voltage.
- 6. (New) The electronic device as claimed in claim 3, wherein the electronic device further comprises an image sensor for sensing an image through the variable focus lens, the image sensor being arranged to provide the driver circuitry with an output signal for controlling the magnitude of the further voltage.

- 7. (New) The electronic device as claimed in claim 5, wherein the image sensor is arranged to increase the further voltage until the image is free of distortion.
- 8. (New) The variable focus lens as claimed in claim 2, comprising an image sensor for sensing light passing through the variable focus lens, the image sensor being arranged to provide the electrode arrangement with an output signal for controlling the magnitude of the voltage sufficient to remove the central portion of the interface from the part of the transparent end portion of the container.
- 9. (New) The variable focus lens as claimed in claim 2, wherein the electronic device further comprises an image sensor for sensing an image through the variable focus lens, the image sensor being arranged to provide the electrode arrangement with an output signal for controlling the magnitude of the voltage sufficient to remove the central portion of the interface from the part of the transparent end portion of the container.

Patent

Serial No. 10/599,866

Amendment in Reply to Office Action of September 10, 2008

10. (New) The variable focus lens as claimed in claim 9, wherein the image sensor is arranged to increase the voltage sufficient to remove the central portion of the interface from the part of the transparent end portion of the container until the image is free of distortion.